



FORENSIC ENGINEERING AND ARCHITECTURE CONSTRUCTION SCIENCE ■ ROOF CONSULTING

John C. Wylie, M.S., P.E., REWC, RRO Structural / Forensic Engineer

John C. Wylie has over ten (10) years of experience as an engineering consultant and engineering intern, primarily in the areas of deficient construction, structural analysis and collapse/damage investigations. Mr. Wylie is licensed as a Professional Engineer in four (4) states and a registered Exterior Wall Consultant and registered Roof Observer with the International Institute of Building Enclosure Consultants. Mr. Wylie is responsible for the inspection and structural analysis of a wide variety of building envelope and framing systems that include roof, wall and guardrail systems. Mr. Wylie has provided deposition testimony during a litigation case, and has presented several technical papers at national and regional conferences.

Education

- Master of Science in Civil Engineering: Structures and Mechanics, North Carolina State University (2009)
- Bachelor of Science in Applied Mathematics and Physics, Mansfield University of Pennsylvania (2005)

Registration/Certification

- Registered Professional Engineer (P.E.): South Carolina, North Carolina, Florida, New York
- Registered Exterior Wall Consultant (REWC): IIBEC, formerly RCI, Inc.
- Registered Roof Observer (RRO): IIBEC, formerly RCI, Inc.

Professional Organizations

- American Society of Civil Engineers (ASCE)
 - ASCE Forensic Engineering Division Committee Member
- National Society of Professional Engineers (NSPE)
- American Concrete Institute (ACI)
- American Wood Council (AWC)

Professional Organizations (continued)

- International Institute of Building Enclosure Consultants (IIBEC)
- Structural Engineering Association of South Carolina (SEA of SC)
 - Greenville Chapter President 2018-2019

Previous Experience

- Construction Science and Engineering Inc. (January 2009 - Present)

Related Experience

- Graduate Research Assistant, North Carolina State University (January 2007 - January 2009)
- Engineering Assistant, North Carolina Department of Transportation (May 2006 - August 2006)
- Transportation Construction Inspector: Level III, New York State Department of Transportation (May 2005 - August 2005)

Principal Areas of Practice

- Deficient Construction
- Structural Analysis
- Collapse and Damage Investigation

Deficient Construction

- Investigation of building envelope and structural issues of residential structures, multiple locations in SC and NC
- Investigation of building envelope issues of residential structures, multiple locations in SC
- Investigation and assessment of building envelope and structural issues of residential structures, SC
- Investigation of building envelope and wood truss roof system of residential structures, multiple locations in SC
- Investigation and assessment of building envelope and structural issues of residential structure, SC
- Investigation and assessment of structures issues of residential structures, GA
- Investigation of structural issues for residential structures, SC
- Investigation and assessment of exterior cladding of residential structure, SC

Structural Analysis

- Investigation and assessment of residential above-ground pool caused by wind event, GA
- Investigation and assessment of residential masonry chimney, multiple locations in GA
- Investigation and assessment of retaining wall collapse, multiple locations in SC
- Investigation of wood truss roof system, SC
- Investigation and assessment of residential siding attachment, NC

Structural Analysis (continued)

- Investigation and assessment of aluminum framed enclosure of single family residence, SC
- Assessment of multi-family condominium handrail attachment, SC
- Investigation and assessment of autoclaved aerated concrete block foundation and exterior walls of single family residence, NC
- Investigation and assessment of residential structural framing issues, NC
- Investigation and assessment of building envelope and structural issues for residential structures, multiple locations in SC
- Investigation and assessment of pre-engineered metal building including standing seam metal roof, steel bar joint, steel girders and steel columns, SC
- Investigation and assessment of structural wood pile foundation of residential structures, SC
- Design of wood framed gazebo, SC
- Investigation and assessment of light-gauge metal exterior framing of condominium high-rise and mid-rise residential structures, multiple locations in SC
- Design of light-gauge metal framed marina dock, LA

Collapse and Damage Investigation

- Investigation of structural damage to residence caused by tree impact, multiple locations in SC
- Investigation of structural damage to residence caused by earthquake, SC
- Investigation of structural damage to residence caused by vehicle impact, TN

Collapse and Damage Investigation (continued)

- Investigation of structural damage to residence caused by wind event, TN
- Investigation of damage to boat dock caused by wind event, GA
- Investigation of residential roof system caused by wind and hail event, GA
- Investigation of wood truss roof system deteriorated due to Fire Retardant Treatment (FRT), SC
- Investigation and assessment of residential modular roof system failure, SC
- Investigation of collapse of a large-scale commercial SPF roof structure, SC
- Investigation of in-ground swimming pool surface cracking at residence, SC
- Investigation of low-slope rubber paver issues at commercial roof, SC
- Investigation of structural steel television tower collapse, SC
- Investigation of damage to residences caused by vibration events, SC
- Investigation of damage to residences caused by blasting events, SC
- Investigation of reinforced concrete slab-on-grade airplane taxi area, SC
- Investigation of light-gauge metal roofing truss collapse, SC
- Investigation of structure damage caused by termites at residence, SC
- Investigation of low-slope roof collapse of commercial building, SC

Collapse and Damage Investigation (continued)

- Investigation of damage to boat docks caused by wind and/or wave events, multiple locations, SC
- Investigation of residential structure damaged by fire, SC
- Investigation of hotel structure damaged by fire, SC

Presentations and Publications

- “Anatomy of Construction Litigation, Part I - Identification of Defects”, IIBEC Interface Article, August 2019
- “Evaluating The Adequacy of Siding Attachment”, IIBEC Interface Article, July 2019
- “Why Window Why? Water Testing Problems and Solutions”, BEC Charleston Meeting, Charleston, SC, April 25, 2019
- “Best Practices for Structural Engineering”, CSE Seminar Dealing with the Challenges of Mid-Rise Wood Frame Construction, Clemson, SC, July 2017; Atlanta, GA, August 2017; Raleigh, NC, November 2017
- “Dealing with the Challenges of Mid-Rise Wood Frame Construction”, Mid-Atlantic Chapter RCI Seminar, Jessup, MD, October 2017
- “Lessons Learned During Sliding Glass Door Replacement and Concrete Balcony Repairs in a Hurricane Coastline”, 31th RCI International Convention and Trade Show, Orlando, FL, March 2016
- “Tale of Two Stones”, The 12th North American Masonry Conference, Denver, CO, May 2015; American Society of Civil Engineers (ASCE) Forensic Engineering 7th Congress Conference, Miami, FL, November 2015

Presentations and Publications (continued)

- “A Building’s First Line of Defense: The Exterior Cladding”, CSE Load Path Seminar, Clemson, SC, November 2015
- “Case Study on Code Shortcomings Regarding Stone Veneer Requirements”, 2015 WCA Spring Conference, Mount Pleasant, SC, March 2015
- “Siding Attachment: Facts and Fantasies”, CSE Understanding Building Envelope Failures, Clemson, SC, June 2013; 28th RCI International Convention and Trade Show, Anaheim, CA, March 2014
- “Experimental Testing of Unreinforced Masonry Walls Strengthened with Orthogonal Near-Surface Mounted CFRP Subject to Out-of-Plane Loading”, a thesis submitted to the Graduate Faculty of North Carolina State University, 2009